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### (54) PHOTOCATALYTIC TILE

#### (57) Abstract:

**PROBLEM TO BE SOLVED:** To obtain a photocatalytic tile capable of making use of the texture or the beauty of the surface of a tiles by providing a photocatalyst in a line like and/or dot-like state on the surface of the tile in the photocatalytic tile provided with the photocatalyst on the surface.

**SOLUTION:** In the photocatalytic tile provided with the photocatalyst on the surface to prevent the soiling of the surface, to impart the self-cleaning function of the

surface and to easily remove the soiling to facilitate the cleaning, the photocatalyst is provided in the linear and/or dot-like state. In such a case the photocatalyst is preferably provided so as to expose 40-90% of the surface of the tile. In the case of providing the photocatalyst in the line-like state, the line like state is preferably curved line or mesh-like one. As a result, the photocatalytic reaction is sufficiently advanced even when the surface of the tile is irradiated with light from any direction. As the photocatalyst formed on the surface of the tile, metal oxides such as Zr<sub>2</sub>O, ZnO<sub>2</sub>, SnO<sub>2</sub>, WO<sub>3</sub>, Bi<sub>2</sub>O<sub>3</sub>, SrTiO<sub>3</sub>, Fe<sub>2</sub>O<sub>3</sub> or the like in addition to TiO<sub>2</sub> are mentioned.

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XP - N2000-482188

AB - JP2000262905 NOVELTY - A photocatalyst tile includes a photocatalyst provided in the form of linear and/or point on the surface of a tile.

- USE - For mirrors, lenses, glass, building material and machinery.

- ADVANTAGE - The tile has good design property.

- (Dwg.0/0)

IW - PHOTOCATALYST TILE COMPRISE PHOTOCATALYST FORM LINEAR POINT SURFACE TILE

IKW - PHOTOCATALYST TILE COMPRISE PHOTOCATALYST FORM LINEAR POINT SURFACE TILE

NC - 001

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TI - Photocatalyst tile comprises photocatalyst in form of linear and/or point on surface of tile